



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

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Ref:EPR-SA

PROGRESS POLLUTION REPORT #4
Superior Waste Rock
Superior, Mineral County, Montana

I. HEADING

Date: 11/09/02
From: Tien Nguyen, On-Scene Coordinator
Agency: EPA
Unit: Region VIII - Emergency Response Program
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(303) 312-6820
To: Kevin Mould, EPA Headquarters
POLREP No.: #4
Site: Superior Waste Rock

II. BACKGROUND

Site Number: 08-ER
Party Conducting the Action: EPA
Response Authority: CERCLA
NPL Status: No
Action Memorandum Status: 08/02/02
Date Action Started: 08/20/02
Completion Date: TBD

III. SITE INFORMATION

A. Incident Category

Time Critical, Fund-Lead

B. Site Description

1. Site description

The Site covers the town of Superior, in Mineral County, Montana, where tailings reportedly have been used as a fill surface soil and contamination exists at local residences, the town's right-of-ways, the county fairground, and the Superior High School track. The Site is located down-stream from the Flat Creek drainage, along the banks of the Clark Fork River, and approximately 3.5 miles south of the Iron Mountain Mine and Mill. The waste rock/tailings reportedly are from the Iron Mountain Mine and Mill.



2. Site evaluation

See previous POLREPs for additional Site information.

On January 23, 2002, the Montana Department of Environmental Quality (MDEQ) requested EPA to evaluate the Superior High School track and Superior residential properties for a possible removal action. From the results, a Site Sampling Plan has been developed and from June 4 - 12, 2002 the EPA Region VIII Removal Program tasked START2 Contractor to collect surface and sub-surface soil samples for XRF on-site screening. A total of more than 650 samples were collected from nearly 100 residential properties.

XRF results show that several residential properties, the High School track, the County fairground, and the Town's right-of-way locations have elevated levels of lead and arsenic contamination. These levels are ranging from 500 ppm to 11,000 ppm for lead or from 100 ppm to 1,700 ppm for arsenic. Ten percent of these XRF soil samples were sent to the labs for analytical confirmation. Four of these samples were also run for Toxicity Characteristics Leaching Procedures (TCLP). Results indicated that all four samples failed TCLP for lead. These results ranged from 36 mg/l to 140 mg/l; the regulatory standard for lead is 5 mg/l. The four samples were collected from the high school track, the County fairground, the residences at 201 Spruce (along the fence line) and at 208 Main street (forest service home).

3. Description of threat

Arsenic and lead have been identified as the contaminants posing risks and hazards. See previous POLREPs for additional information.

IV. RESPONSE INFORMATION

A. Situation

1. Removal actions

Excavated tailings and contaminated soils were staged at the Mineral County Airport ground since August 30, 2002, the EPA Removal program tasked the Army Corps of Engineers (COE) to: 1) identify an on-site process to treat the excavated tailings that failed TCLP, based on the results of the treatability study which had been conducted by an EPA/START contractor; 2) design a permanent repository at the airport ground to serve as landfill for the Site contaminated soils and treated tailings, and 3) assist the OSC in overseeing this Removal Action.

On October 11, COE provided the design plan to EPA, MDEQ and the Mineral County for review and comments.

On October 22, EPA's contractor, Environmental Restoration Inc. (ER) and its sub-contractor, Envirocon of Missoula, mobilized to the Site to start this phase of the Removal.

See POLREP #3 for Previous Removal Activities at the Site.

From November 1 to 8, 2002, the following removal activities were accomplished:

- By 11/05/02, ER's sub-contractor, Envirocon, completed its rocks/tailings treatment (solidification). A total of approximately

3,560 tons of tailings and waste rocks were treated using 7 to 10 percent of portland cement. Samples of the treated materials were collected; each sample represented each day of treatment operation and was sent to the lab for TCLP analysis. Sample results indicated that all samples were non-detected for lead (Detection limit is 2.5 mg/l and the Regulatory limit is 5 mg/l).

By 11/06/02, ER completed its screening for select materials; the sizes of materials were specified in the Corps of Engineers' design plan for capping the repository cell. Soil dug from the cell was used to screen select materials. A total of 2,100 cubic yards of select material less than one-inch in size and approximately 300 cubic yards of select rock (sizes between 1 to 2-inches) were screened.

On 11/06/02, Envirocon de-mobilized from the Site. ER selected the Barber-Webb Company of Los Angeles as its sub-contractor to install the membranes to cover the repository cell.

On 11/07/02, ER completed the placement of all treated materials into the repository cell. By 11/08/02, ER completed scrapping approximately 4 to 6 inches of surface soil in the areas used to stage the wastes and plug the mill treatment operation; the area is approx. 1.5 acres. The scrapped contaminated soil was also placed in the cell. Three samples were collected in this area, and analyzed for RCRA total heavy metals for cleanup verification. By the end of 11/08/02, the waste in the repository cell had been grade and sloped, ready to be capped; and preliminary sample results indicated that the staged areas were clean.

2. Disposal

On October 30, 2002, a County representative provided the OSC with a copy of agreement among the County, the School District, and the Town of Superior (dated August 19, 2002) and a copy of letter from the County to FAA (dated October 29, 2002) which indicated that they had agreed to let EPA use the County airport ground as a permanent repository for the treated wastes.

3. State and Local Role

As a result of concern expressed by the community, the threats posed at the Superior Waste Rock Site and the inability of the State to fund removal of the potentially hazardous materials, the State requested assistance from EPA in undertaking a Removal Action. Staff members from MDEQ, Mineral County Health, School District, and the Town of Superior are working with EPA on a continuing basis. They will continue to be informed and involved.

4. Enforcement

The Agency has contacted the PRPs and issued a General Notice letter to them on August 21, 2002.

B. Future Plans

The ER's subcontractor will be on Site on 11/14/02 to install the membranes, and the repository cell will be capped as designed.

V. COST INFORMATION

The estimated EPA costs for the first and second Phase of the Removal are \$550,000.